

MOUNTAIN

OPERATIONS

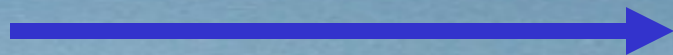




REFERENCES:

- ***FM 1-202 ENVIRONMENTAL FLIGHT***
- ***AERONAUTICAL INFORMATION MANUAL
(AIM)***

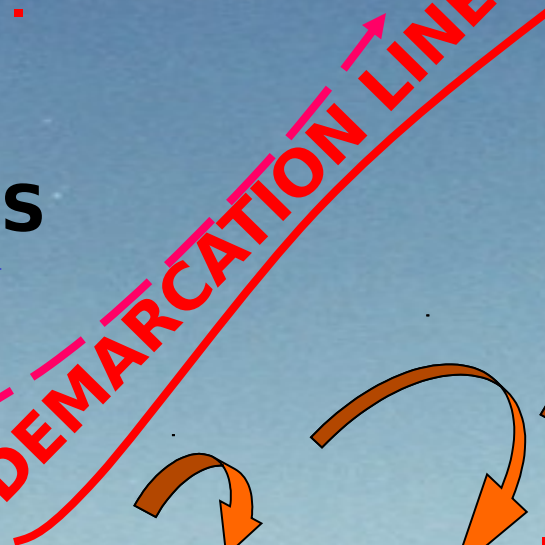
PREVAILING WINDS



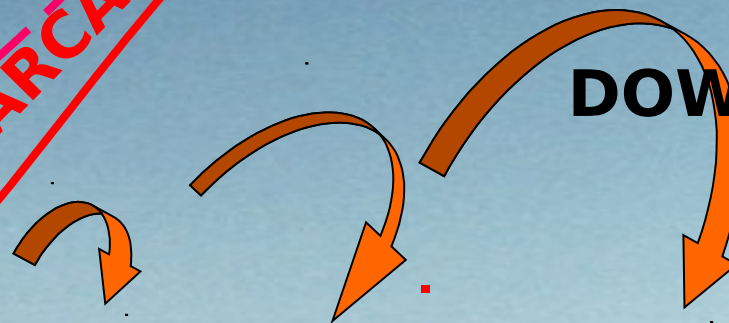
**LOCAL WIND
(UPFLOW)**



DEMARCATION LINE



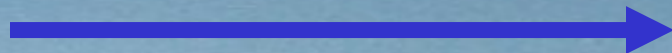
**TURBULENCE
&
DOWNFLOW**



SURFACE WINDS



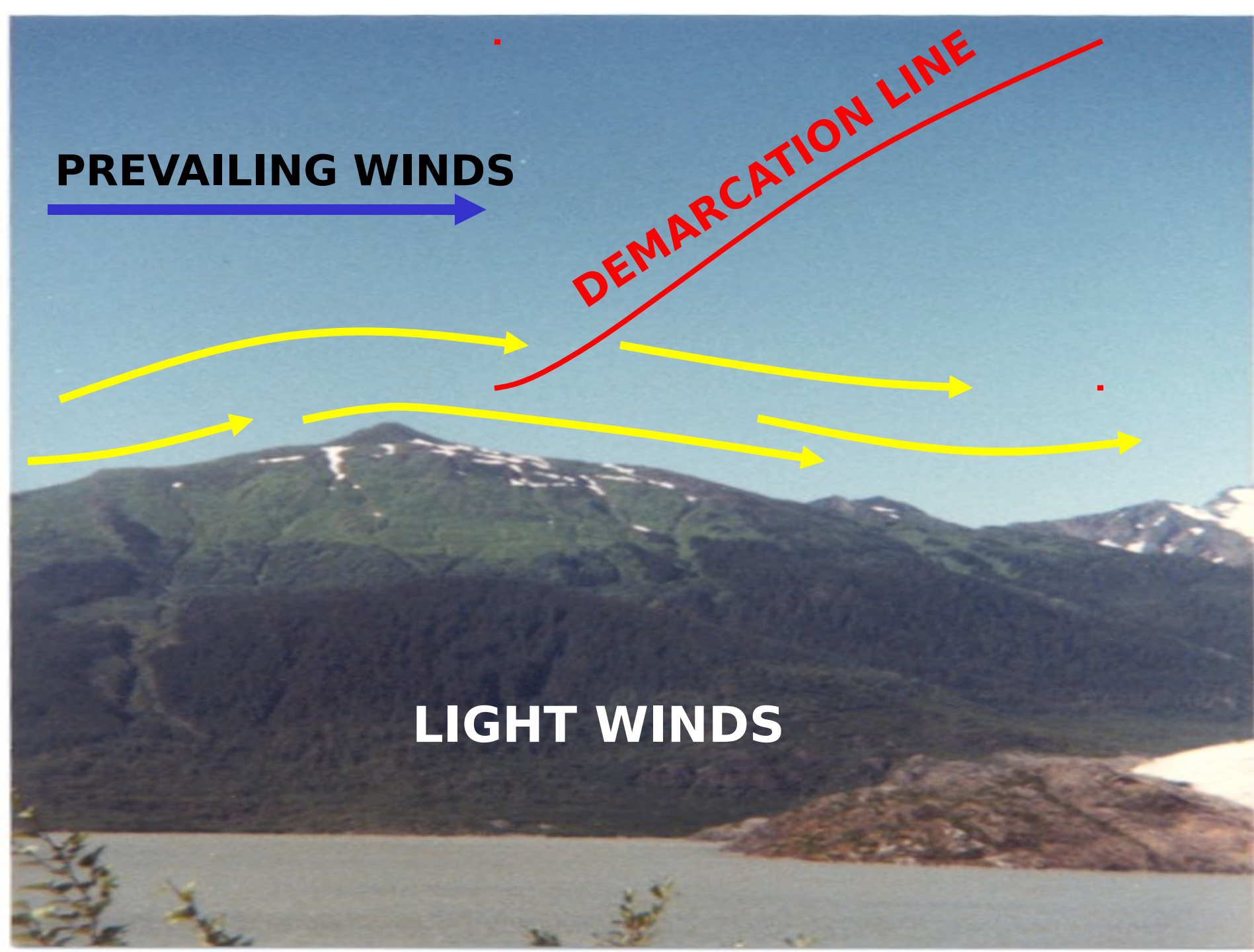
PREVAILING WINDS



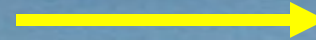
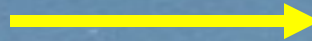
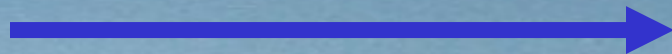
DEMARCATIION LINE



LIGHT WINDS



PREVAILING WINDS



DEMARCATION LINE

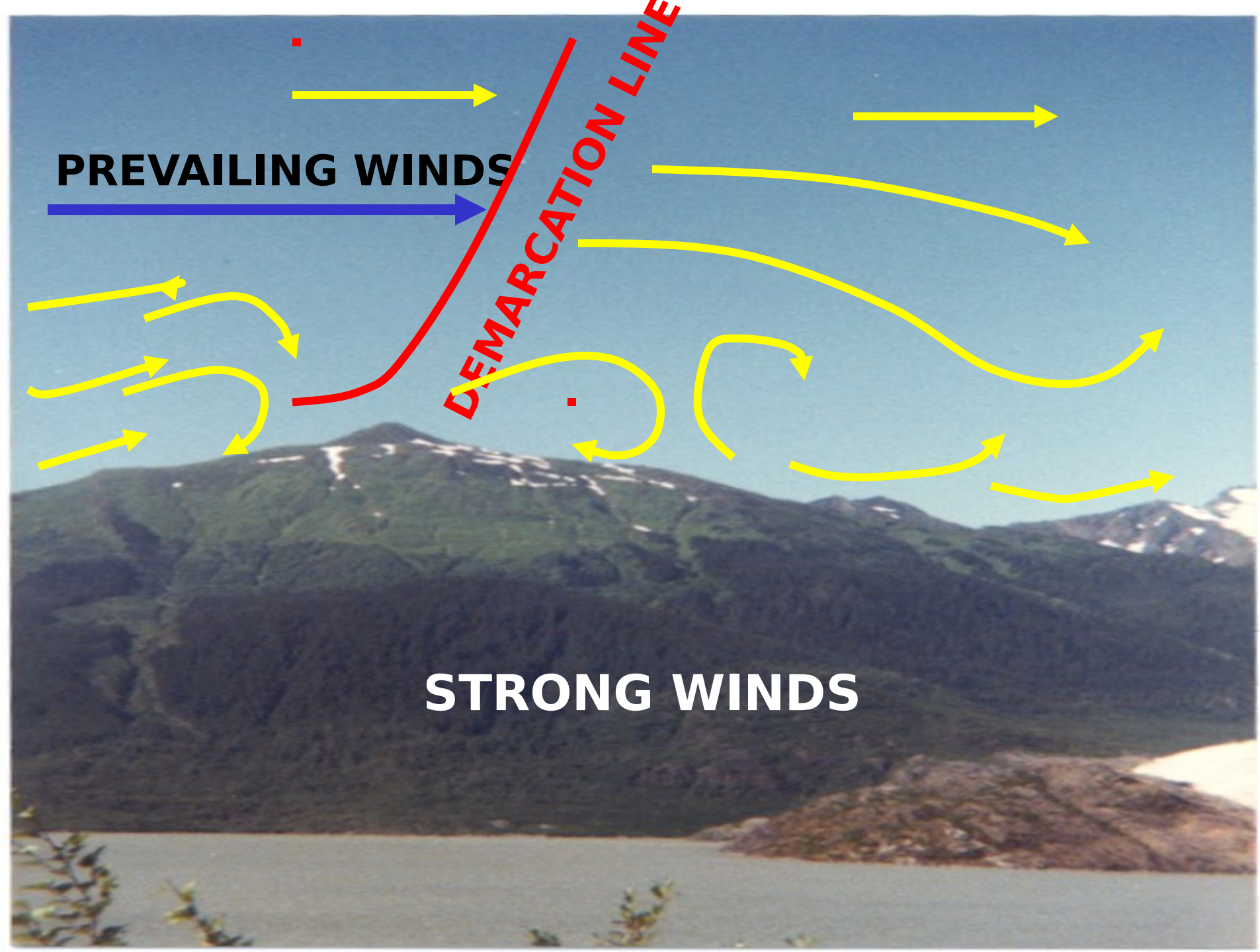


MODERATE WINDS

PREVAILING WINDS

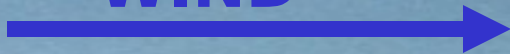
DEMARICATION LINE

STRONG WINDS

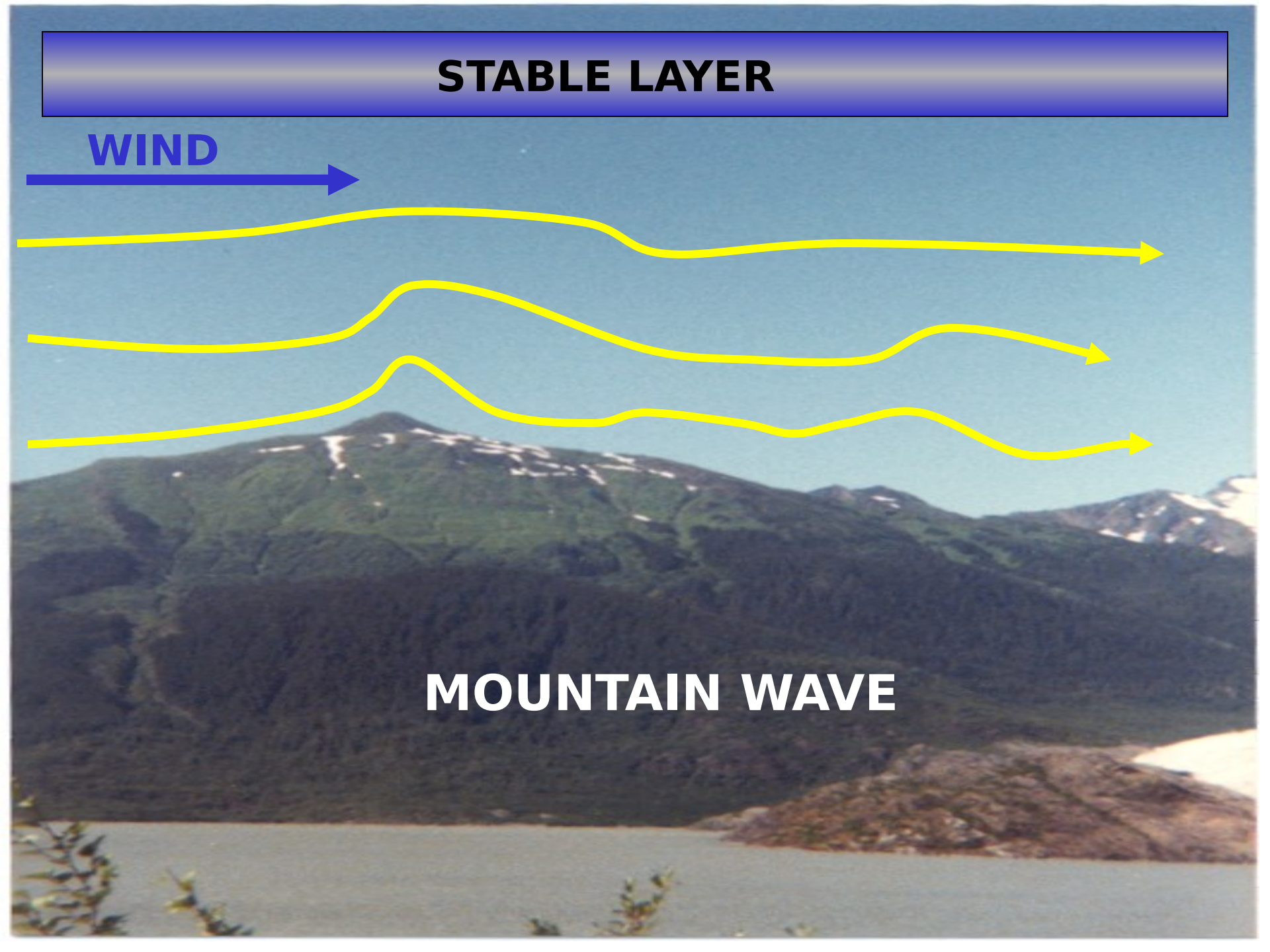


STABLE LAYER

WIND



MOUNTAIN WAVE

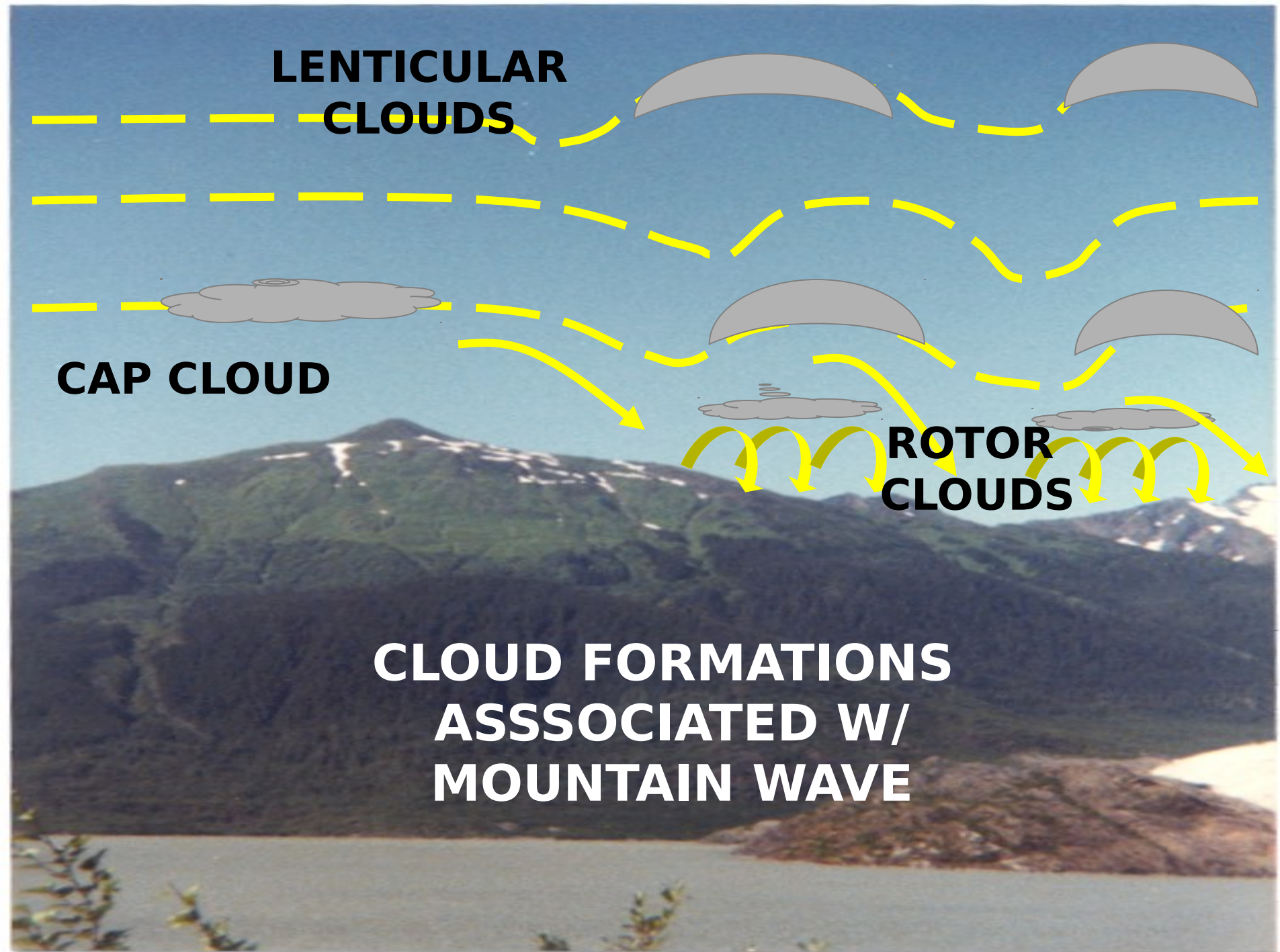


**LENTICULAR
CLOUDS**

CAP CLOUD

**ROTOR
CLOUDS**

**CLOUD FORMATIONS
ASSOCIATED W/
MOUNTAIN WAVE**



SLACK WINDS

STABLE LAYER

**STRONG
GRADIENT
WINDS**

30K

25K

20K

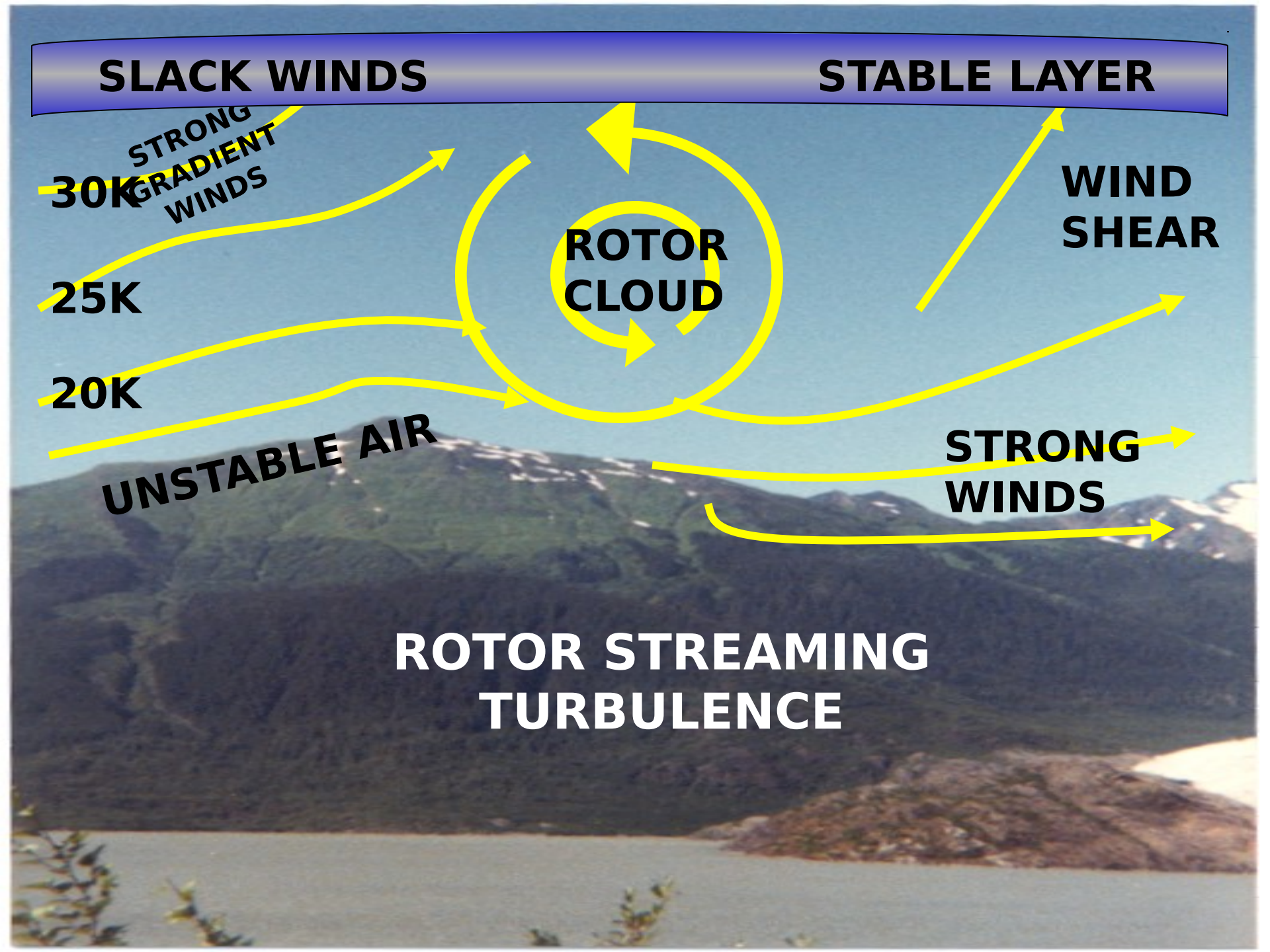
UNSTABLE AIR

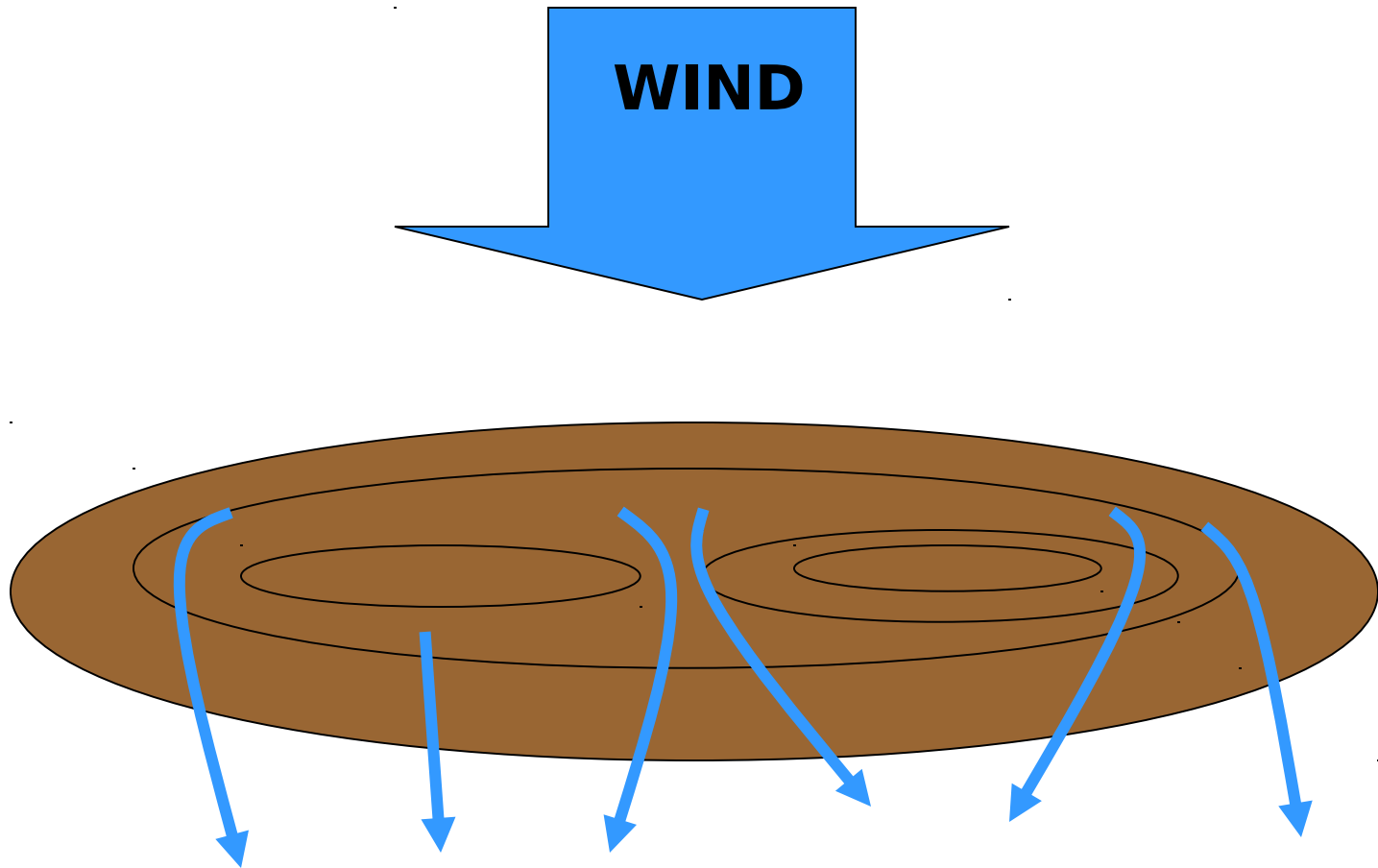
**ROTOR
CLOUD**

**WIND
SHEAR**

**STRONG
WINDS**

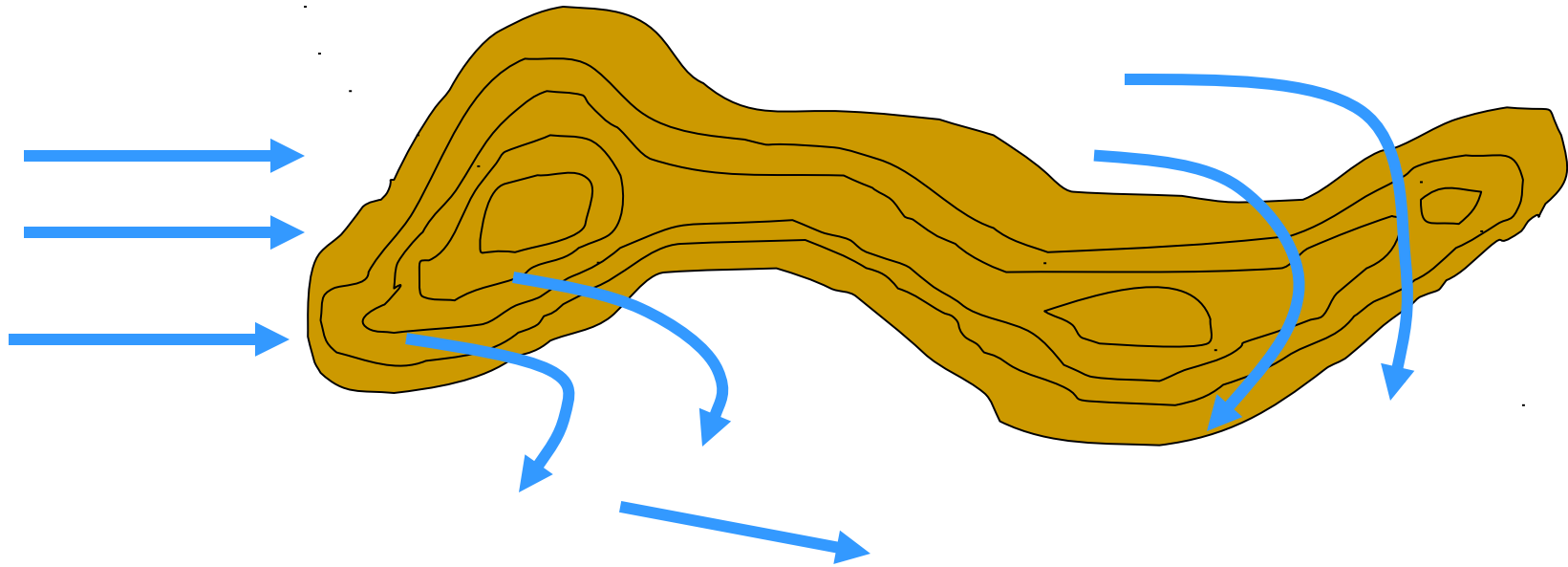
**ROTOR STREAMING
TURBULENCE**





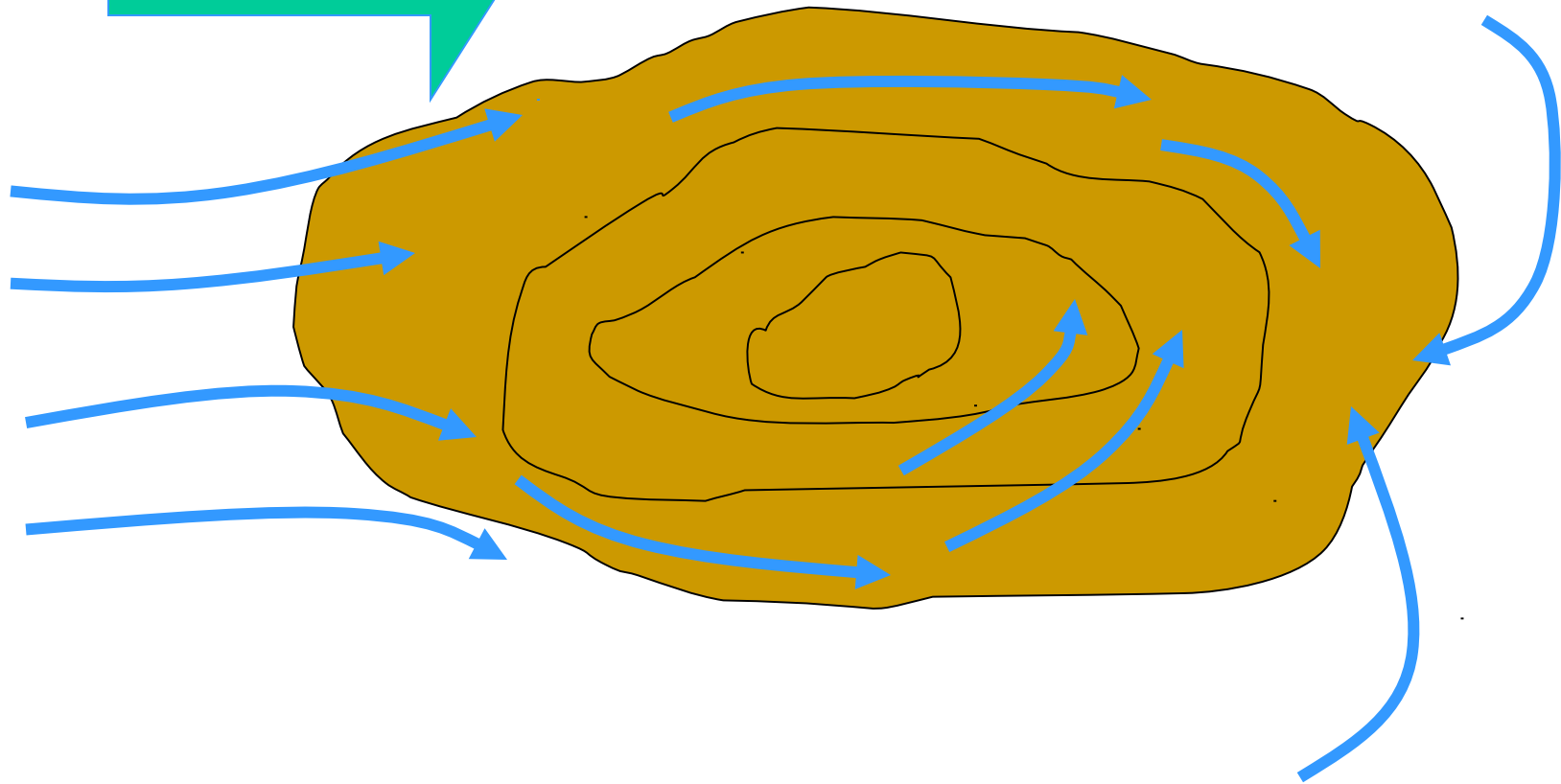
WIND ACROSS A RIDGE

WIND



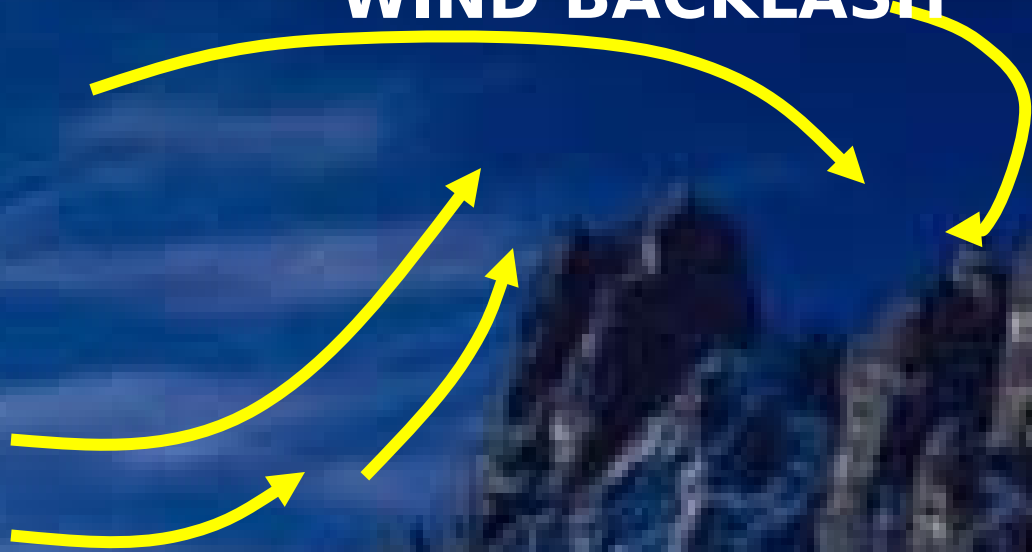
SNAKE RIDGE

WIND



WIND ACROSS A CROWN

WIND BACKLASH



SHOULDER WIND

A photograph of a jagged, rocky mountain peak, likely a volcanic cone, under a clear blue sky. Several yellow arrows are overlaid on the image to illustrate wind patterns. One long arrow starts from the top left, curves over the peak, and points towards the right. Another arrow starts from the left, curves upwards towards the peak. A third arrow starts from the right, curves downwards towards the peak. A fourth arrow starts from the top right, curves downwards towards the peak. A fifth arrow starts from the top left, curves downwards towards the peak. A sixth arrow starts from the top right, curves downwards towards the peak. The text 'STRONG WINDS' is written in white capital letters in the top left corner. The text 'WIND ACROSS A CANYON' is written in white capital letters at the bottom center.

STRONG WINDS

WIND ACROSS A CANYON



FLYING ***TECHNIQUES***

NORMAL TAKEOFF

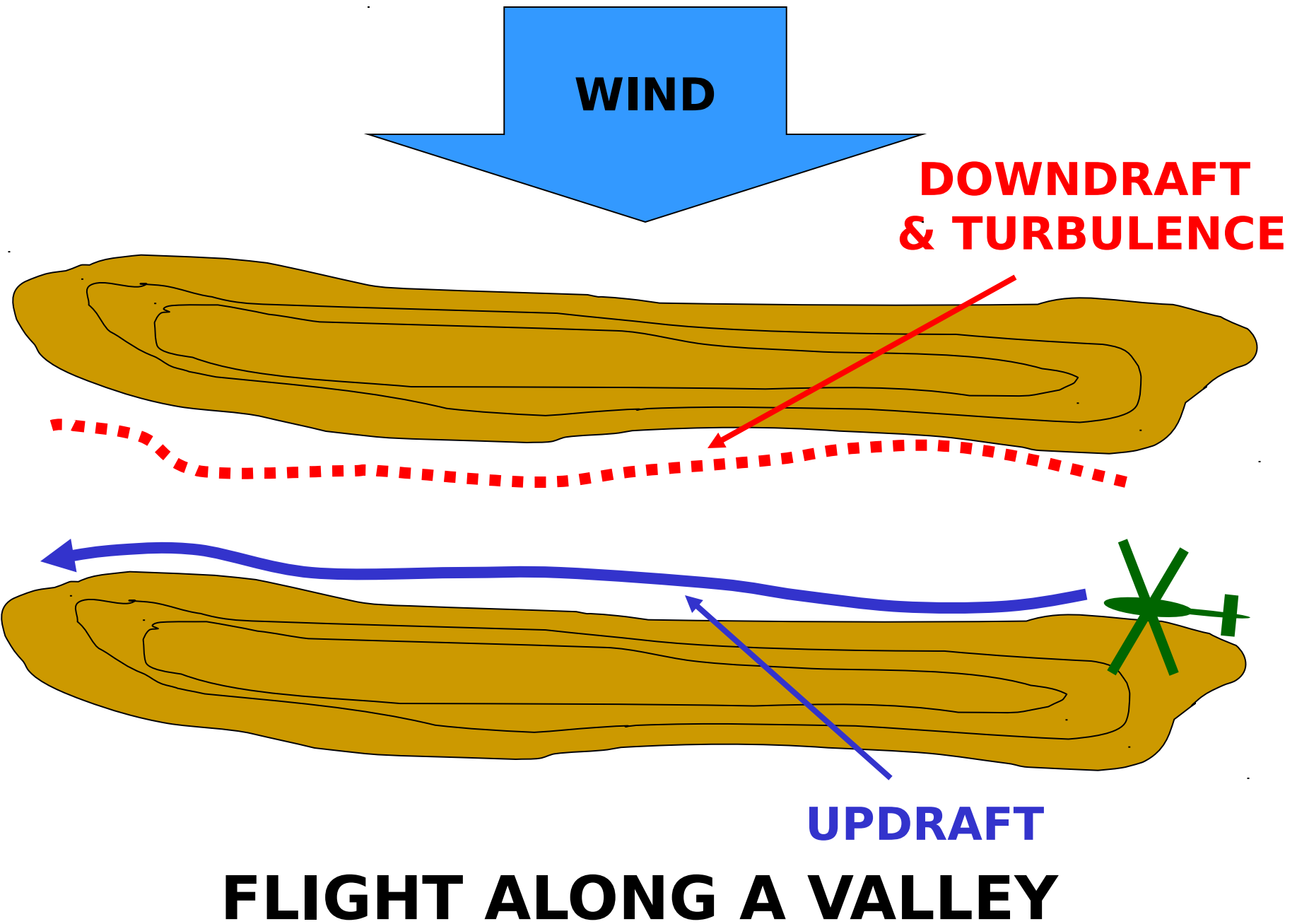


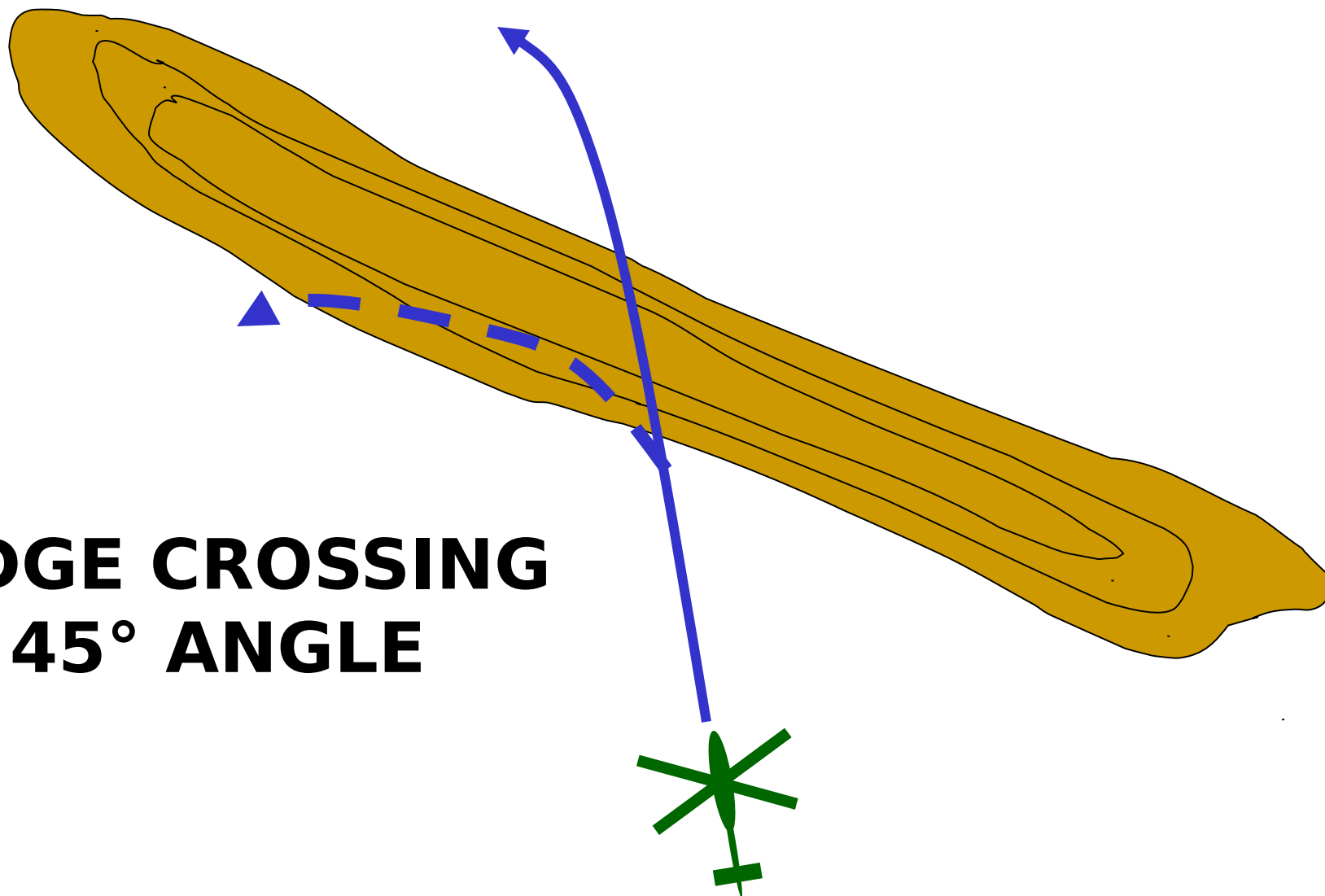
AIRSPEED OVER ALTITUDE

MOUNTAIN TAKEOFF

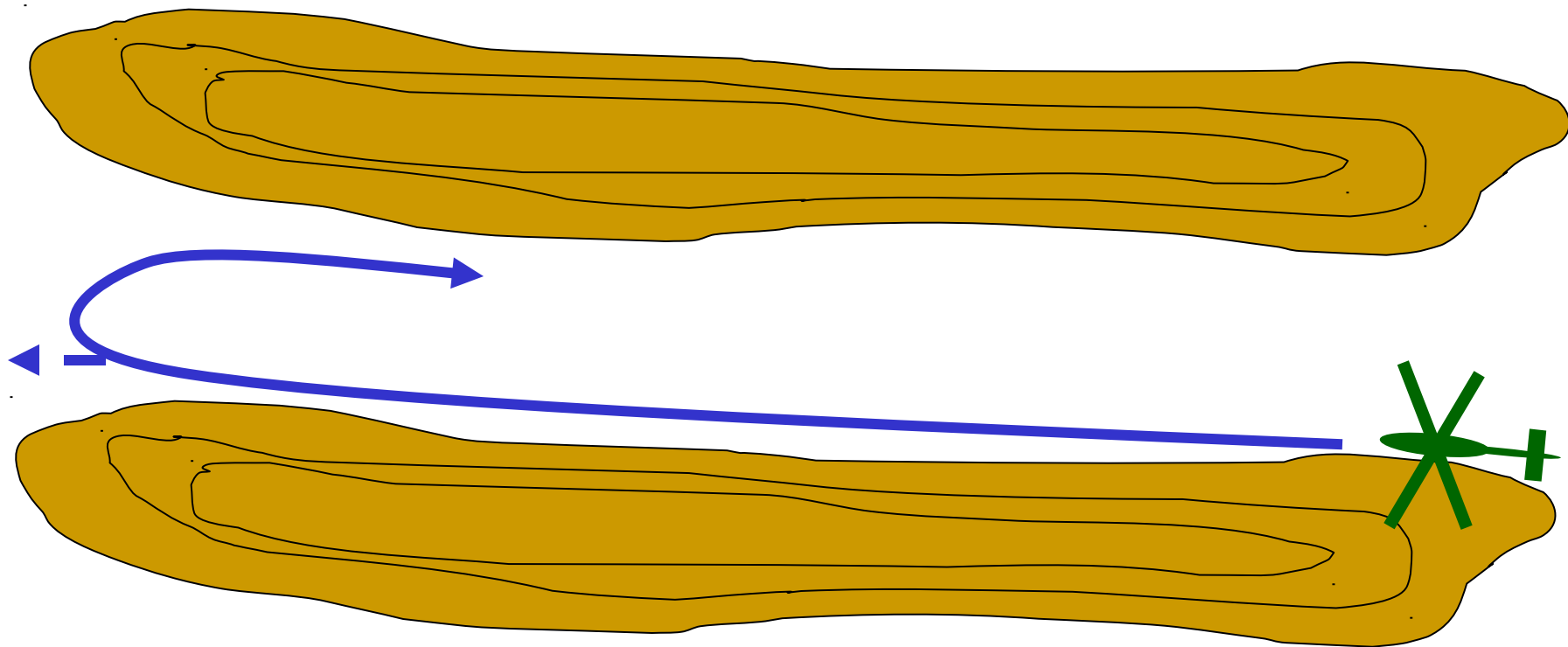
ENROUTE







**RIDGE CROSSING
45° ANGLE**



180° TURN OR EARLY CLIMB

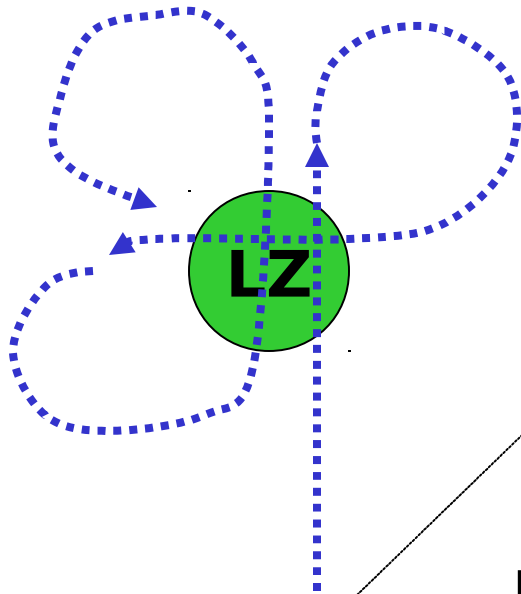
APPROACH

&

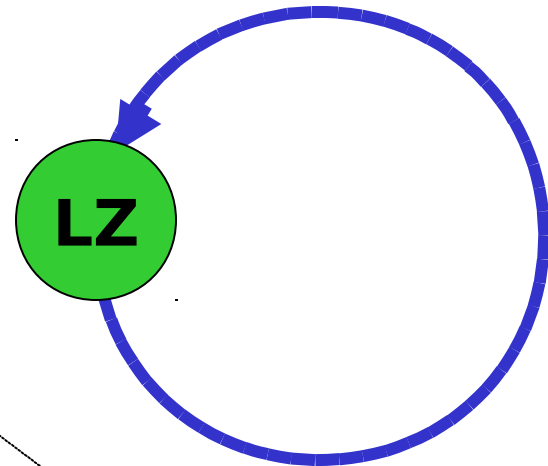
LANDING



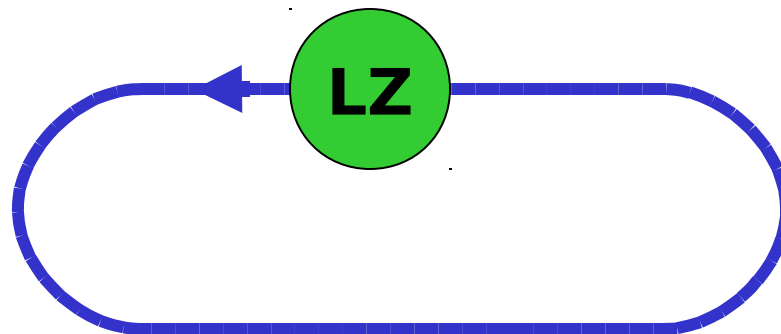
FIGURE EIGHT



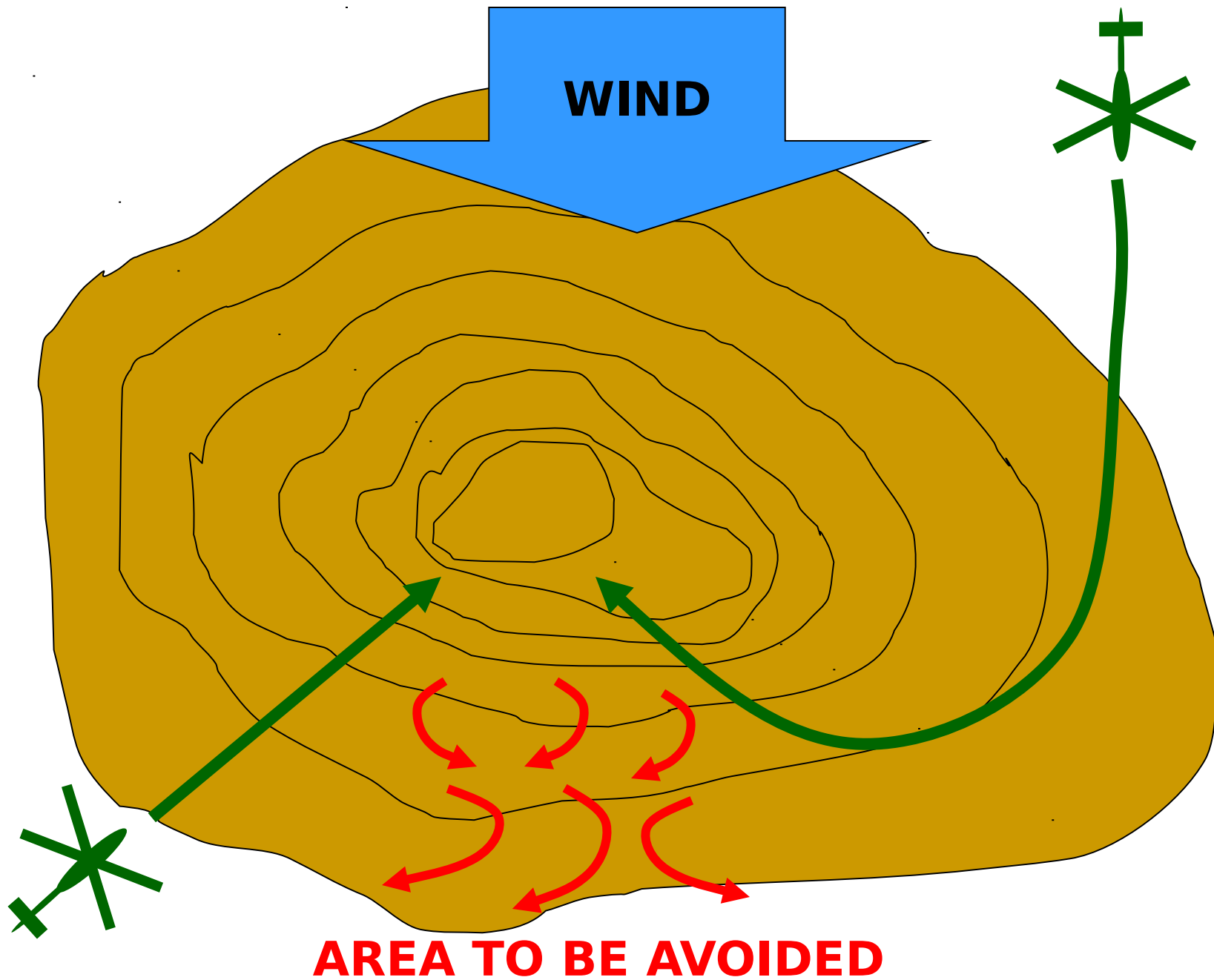
CIRCULAR

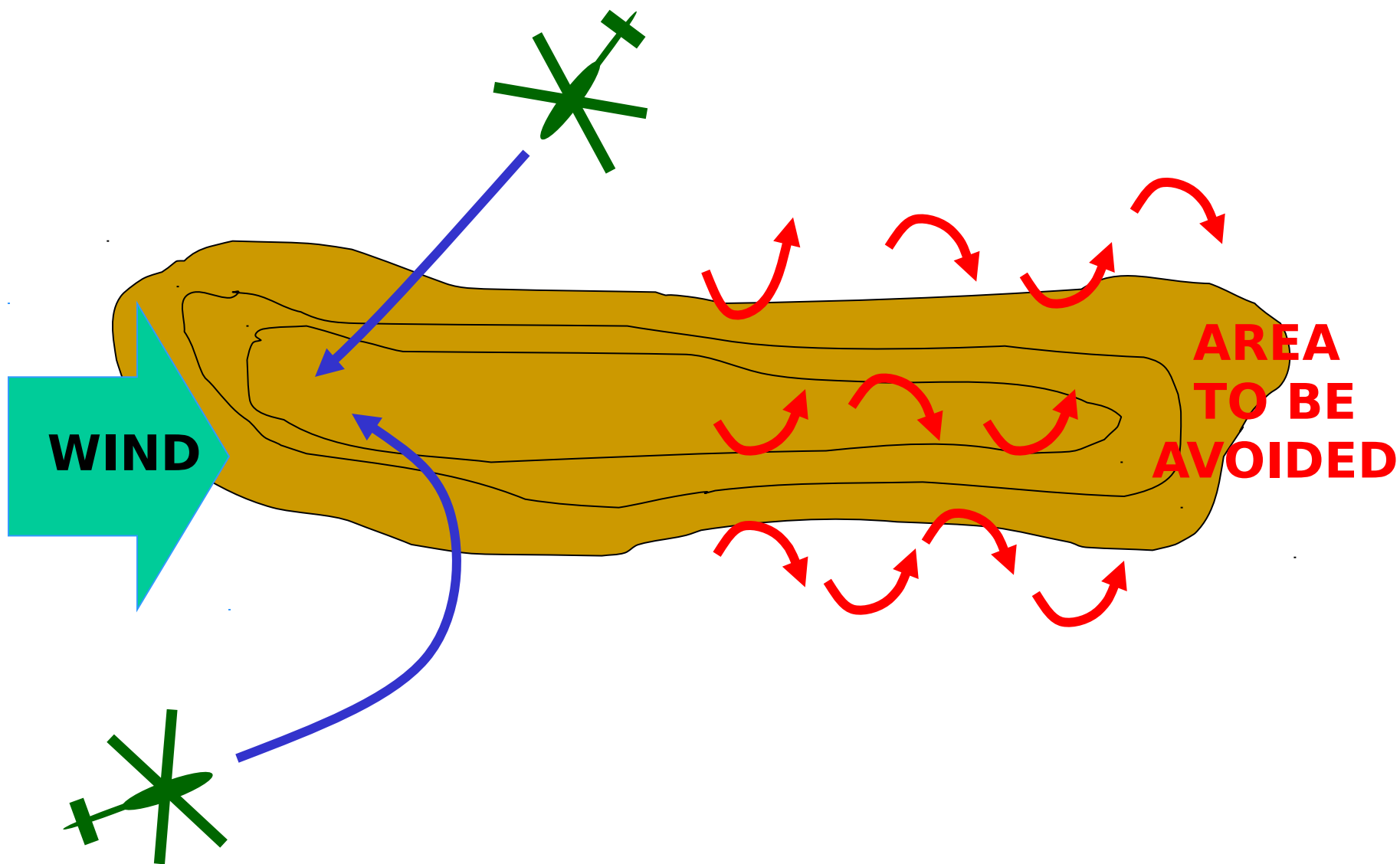


RACETRACK

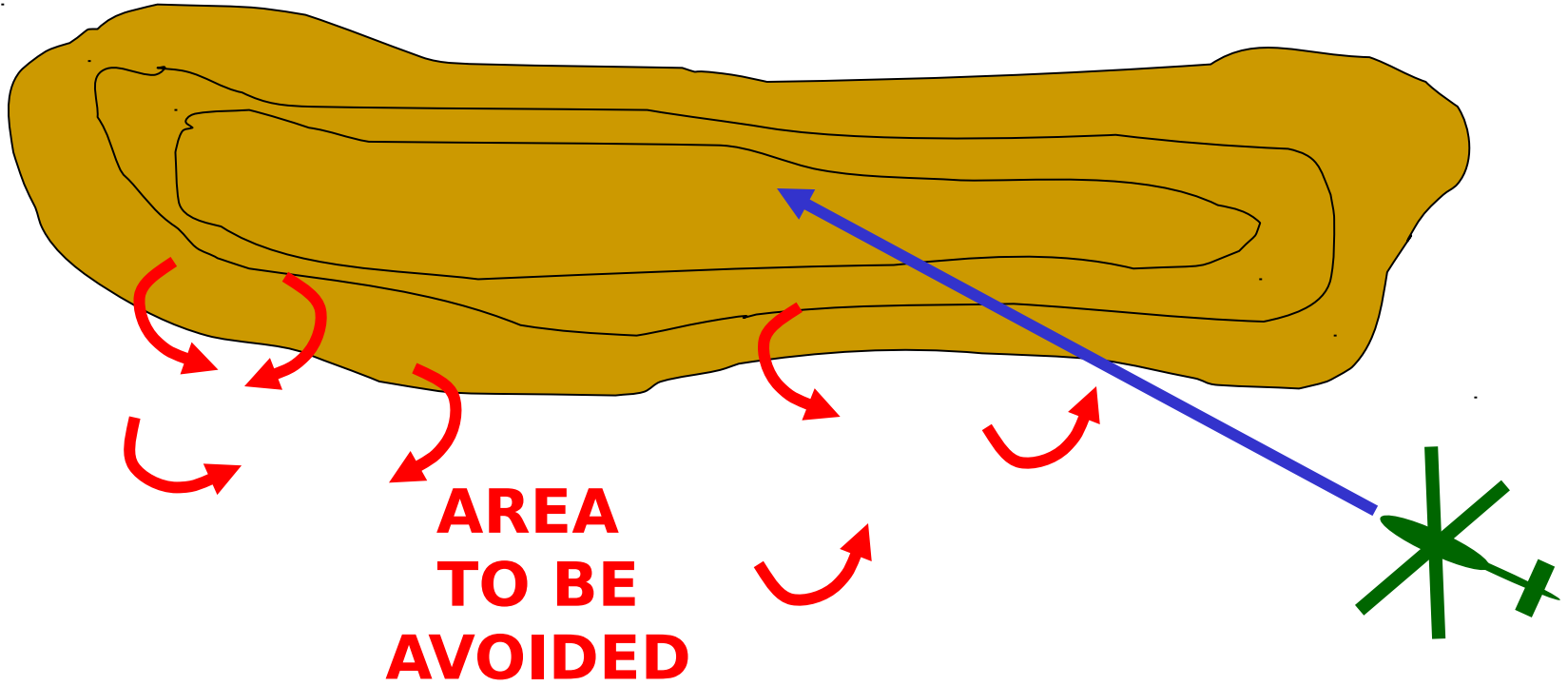


LZ RECONNAISSANCE

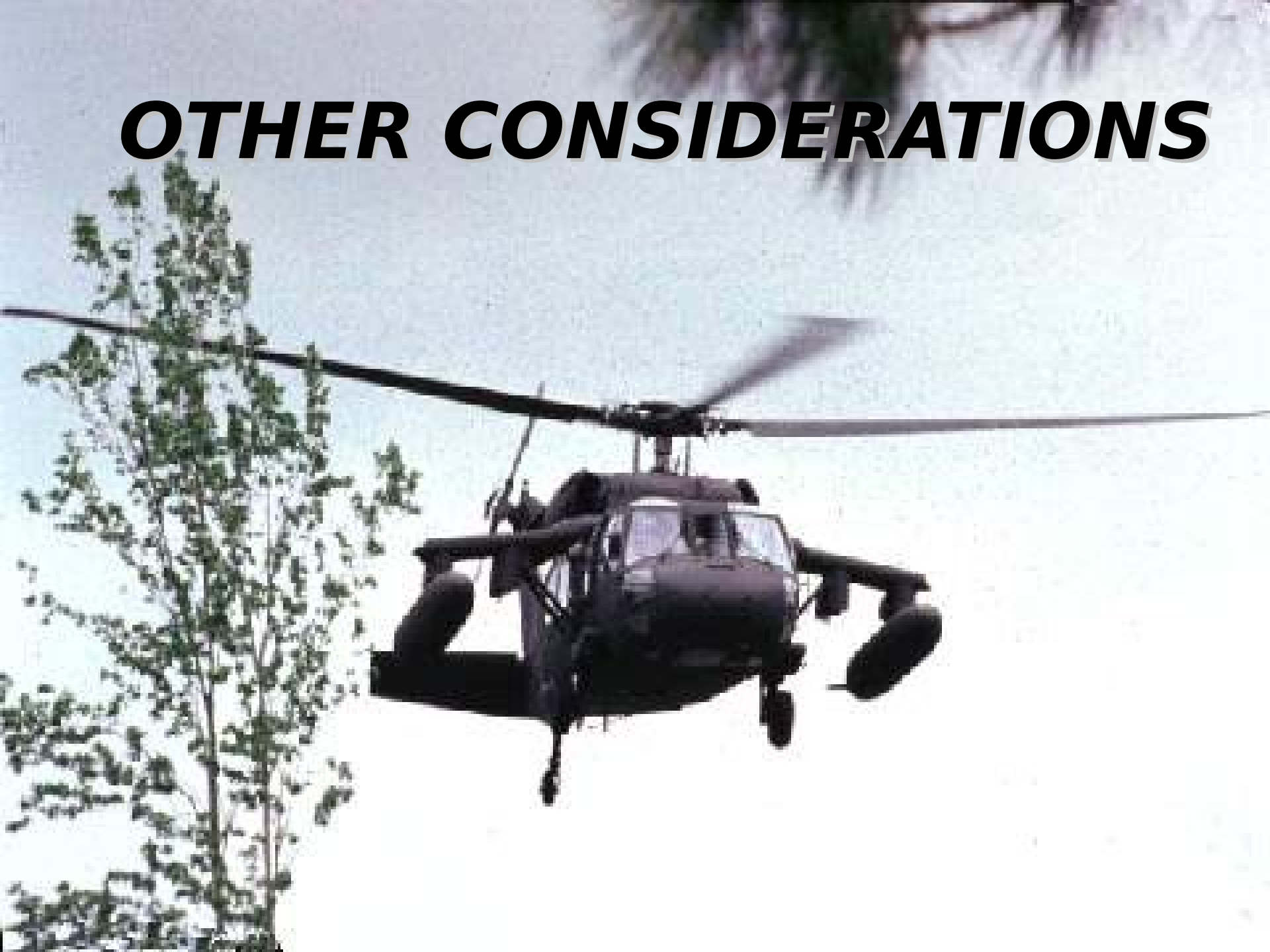




WIND



OTHER CONSIDERATIONS



SETTLING WITH POWER

- **Vertical / Near Vertical Descent at least 300fpm**
- **Low Forward Airspeed**
- **Using some of available Engine Power 20%-100%**



HOVER IGE

- Reduced rotor tip vortex
- Reduced velocity of induced airflow

HOVER OGE

- Large blade-tip vortexes
- High velocity of induced airflow